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# THE PHILOSOPHICAL REVIEW.

## OLD AND NEW IN PHILOSOPHIC METHOD.

IF it be true, as Hume said, that Metaphysics is the most contentious of sciences, it is because the problem of existence is vast and intricate, while our powers are limited. Only by slow advances do we come to know what the problem includes; and, in the midst of this attempt, we keep on constructing hypotheses which seem to account for what has been ascertained. We have only to bear in mind the situation in which we are placed, in order to understand how it should happen that old theories are constantly disappearing, and new theories arising. If any one ask, "Why has Philosophy not a fixed form as it is with the exact sciences?" this is the answer: — because the enigma of existence is great, and theories are apt to be found insufficient. This is equivalent to saying that knowledge is constantly widening, and thought continually striving to *account for* what is known. The want of fixedness of form, often urged as a complaint against Philosophy, is only the indication of human progress. The power of persistent thought proves the test of all past thought, and becomes a measure of possible advances in the immediate future. The rise and fall of theories thus belongs to the history of human thought. If, as Shakespeare says, man is a being of "large discourse looking before and after," each new theory which arrests attention is, as Carlyle suggests, telling the universe "what o'clock it really is." It marks the persistence of thought in the history of our race. It is this which proves the test of theory. Thus thought shows itself greater than observational science, coming more home to the heart of the race, as it leads nearer to the understanding of existence as a whole.

This view, which gives a prominent place to our great thinkers, gives also a subordinate place to each of them. Somehow, the thought of the *race* becomes a test of the thoughts of our grandest thinkers themselves. It is not that the race as a whole can do its own thinking out of the great questions raised; but that it is equal to the task of testing the thought. Reason is greater than the thinker. By this we mean that the power commonly possessed proves the test of the achievements of the specially gifted. A new hypothesis is proclaimed; it appears a great discovery; there arises a considerable stir and din, followed by large disputation as to the merits of the new idea. By and by, the movement begins to slacken, things grow quiet again. Thereafter it is found that the universe has been silently moving on its way, with its problem still unsolved. The new idea was not so great as the dawn of enthusiastic admiration suggested. When sunset comes, the enigma of existence is still wreathed in mystic shadows.

But a fresh dawn is moving towards us, preparing for a new day of effort. This is the world's hope. Observational science has larger work before it; Philosophy has a fresh task for guidance of the general thought; God's gift of reason, entrusted to the race as a whole, will do its part, — testing, rejecting, and accepting. When the fixed relations of research and reflexion are understood, it appears that theories we are rejecting have not been mere phantoms and illusions. Our interest and inquiry have not proved waste of time; our expectations are not wholly belied. When we reject the alluring hypothesis, it is not as if we had torn a sheet of paper to fragments and given these to the winds. It is not as when the ashes of the engine-room are thrown overboard to settle in ocean-depths, while the ship holds on her way. Rejected theories count for more than exhausted steam-power. Theories belong to the organization of thought. The history of their relations, is the history of thought itself. While we are tracing their history, thought is holding on its determined course, — its future, the outcome of its past. The greatest thinkers are the leaders for the time, whose fitness appears in their understanding of the times. Occasionally, we speak of them as 'before their time,' and so indeed they are, for the man must be in advance who is to lead; but very soon they are behind the time, and this also must be, else leadership had little meaning. Their presence and place have been marked enough; but their greatness may appear even more in that which follows, when the standard is borne onwards by other hands.

These considerations prepare the way for appreciation of the contrasts between old and new in philosophic method. The nature of the end we have in view, will become the test of the method we employ. The largeness of the problem of existence will require division of labor, and will impose the necessity for movement, now in one direction, now in another. From this it must follow that advance will not prove so large as at first sight appears. The chances are that the call to halt will sound, in order that other portions of the army of investigation may be brought up to line. And if in this way the next sign of gain be visible on quite another line, that too will be temporary in the annals of thought. Hence, it follows that no theory can be final, for all theory must gather into the continent of progress. The history of science and that of philosophy unite in supplying illustration.

The range of philosophic history spreads out in wide expanse, too large to be included in the present sketch. But if for a moment reference is made to the great names of antiquity, illustration lies ready to hand in the contrast of the theories whose elaboration gave to Greek thought the leadership of the nations, before the Christian era. We find Socrates dealing with the practical life of man; Plato unfolding an ideal theory of existence in which The Good appears the centre and source of all; and Aristotle subdividing the field of inquiry according as sciences are speculative or practical. The three great thinkers have each a marked individuality;

the theories advanced are as distinct in character as the men who worked them out; and nothing can be more certain, historically and philosophically, than that all three contributed to the advance of thought in a very remarkable degree. Nothing coming in immediate succession after these three, presented work capable of comparison with theirs. There is an action and a reaction in rational advance, as in the material world. It seems as if a period of still preparation must be interposed, in order that a later movement may stir enthusiasm with a sense of the promise of new achievements.

When observation is confined to modern times, the impressiveness of the lesson is even more marked. The revival of letters proves the revival of philosophic movement. Antiquity has its lesson, in order that the modern epoch may mark a new departure. Inquiry breaks out in all directions. We reach a scientific age, with appliances altogether new. Fresh knowledge bursts upon us in manifold forms. Under the common inspiration, Philosophy makes a new start. Theory follows theory in rapid succession. The spirit of scepticism comes with destructive power on the field, again the spirit of construction is roused to fresh effort, and appears in new force. There is no little confusion; but it is confusion belonging to advance. Man finds that the problem of existence is immeasurably more intricate than had been imagined. The vastness of the universe appears as before; but subdivision of labor, diversity of structure to secure ends only dimly recognized by us, and correlation of all in unity of system, stand out to view in the light of a new revelation. No wonder that observational science became exultant, and that a disposition arose to estimate philosophy as a thing of ancient history. Our minds are not large enough to take in Nature's revelations in single pictures. The lens is too small for the landscape. Hence novelties are the attractions of the day. These are the choice bits in the scene. But the great force of Reason is at the heart of things; the problems of existence are the same for all time; and when novelties begin to lose their freshness, old questions return upon us, and we desire to know how they look in the altered circumstances. A new architecture has found expression in the enlarged structure, with much confusion of scaffolding and no little waste material lying around; but the possessor comes to enter upon occupancy, and adaptation to his requirements becomes the test of the new erection. Philosophy does not dwell out of doors, admiring only the front elevation. Philosophy must find a dwelling within, the outward structure must be put to proof by the life for which it is a dwelling. Even the newest structure may need some measure of remodelling. No less obviously, we need to say, that the possessor must adapt himself to the new dwelling, — must be content to regard cherished associations as things of the past, — and must find new attractions in his new dwelling. Beyond doubt, philosophy must adapt itself to a new scientific environment. The problem for the time is, how old and new can coalesce; how Science and Philosophy can together revise their relations, so as to show that knowledge and thought meet each other in the daily life.

When it is thus obvious that the end in view must shape our efforts, we are led to recognize the need for something new in method, and, along with this, a further demand for deciding its relation to the old. Some change in method will be a consequence of altered conditions connected with the advance of thought. Just as the angle of vision changes the aspect even of the mountain range, though that is the most enduring of all forms in Nature; so it is with the vast problem of existence itself. It is not that existence has changed from what it was in early ages; it is only that we, as observers and thinkers, have in these later days reached a point of vision, which men of earlier ages had never held. The world is seen to be greater than we knew, and our modes of thought must be expanded accordingly.

These references are designed to guide towards some appreciation of our present situation in philosophy, as that has been largely influenced by recent advances in physical science, pushing into prominence that field of investigation which has come to be designated Physico-psychology. This has introduced references to the 'mechanism' of thought, and has concentrated wide interest on the relations of structure to the movements of intelligence and rational purpose. Physiology and Psychology have thus come into closer relations. A considerable range of investigation concerned with the problems of mental philosophy has been carried over into the physiological laboratory. There the investigation is prosecuted by use of complex instruments. By means of these, results are set down in exact measurements. What is the significance and promise of this new departure? This is a question of much interest as bearing on the future of philosophy.

The answer will be most readily found by considering the range of inquiry belonging to this division of work in the physiological laboratory. We need to mark with special care how much of it is concerned with organic action, how much with mental. According as results are placed on the one side, or on the other, will be their value as a contribution towards our knowledge of rational life. At the same time, whatever be the distribution of results, — both sets of facts held in combination must add greatly to our understanding of human life.

Research bringing into use mechanical contrivances must be largely physiological. It can come into relation with mental facts, only as these are related with the functions of organic life. The area of vision must be filled with manifestation of physical action. By this method we reach mind only indirectly, — only as we stand on the border-land, where exchange of contributions takes place, as commodities are exchanged across the frontier of neighboring nationalities. Such border-land, however, admits of some knowledge of the territory across the line; and such knowledge as this we desire to have, along with any wider knowledge of physical functions which may thus be obtained.

The range of observation belonging to experimental psychology must be concerned mainly with our sensibilities, as these depend upon our relation to the external world; and with the various forms of our activity coming under the notice of others. Some illustrations will show how the physical and mental are taken in relation to each other. Ferrier's researches into localization of functions in the brain, showed well defined regions which could be marked as centres of sensibility, and other regions proved to be centres of movement connected with muscular activity. These results are concerned with the two sides of the nerve system, and their centre in the brain; the researches of Ward, and Wundt, and Münsterberg, and James of Harvard, have been directed on all questions bearing on the movements of the nerve system as related to experience in consciousness. Observation in this field has been aided by a set of instruments capable of recording graphically the movements taking place along the nerve lines. In this way investigations have been conducted as to the inflow of sensory movement, and the overflow of movement towards the muscles. The only thing new in these observations is the rate of communication between the extremities and the brain, on the one side, and the rate of communication on the other, when the purpose is formed to move the muscles, reckoning the discharge of force from the brain when it has to travel to the hand or to the foot. To these may be added estimates of the comparative coarseness or fineness of impression made on the nerves of sensibility. All this belongs to the physical side, and gives us nothing more than measurements making it possible to state in exact figures the variation which may appear between the minimum and the maximum rate or volume of movement.

For mental philosophy, interest concentrates on observations passing beyond these limits, enabling us to contemplate mental activity from the standpoint of the physiologist. This leads into a study of relations, and intervals, and associations, and coördination of movements by direct exercise of will. Here we come more closely into relation with conscious experience and self-determination. How fast an impression can travel to the brain, is a question which when answered throws little light on the mental facts following upon the sensory impression. But we are brought closer to the facts of the personal life, when we come to observe combinations of physical movements concerned in the execution of our own purpose; and still closer, when we see how constitutional sensibilities react, and how habits come to affect activity. Such observations are likely to throw much light on the characteristics of a rational life as conditioned by our physical nature.

The value of the conclusions reached must, however, remain quite secondary and subordinate to the knowledge of mind itself, directly obtained from consciousness. Some states of mind have in them much closer affinity with physical functions than others. These have by their nature more of impulsive force, and in this way their effects come much more directly within the field of vision occupied by the external observer. But the boundary line between mental action and physical is very broadly marked. The impulsive experience is known in our consciousness, it is not known as in our nerves and muscles, even when the effect appears along these lines; movements in nerves and muscles are not known in consciousness, and cannot be known apart from external observation. The physiologist who challenges the claims of mental philosophy, invariably raises a protest against *the introspective method*, as if the turning in upon our own consciousness were quite untrustworthy. Such critics have the field of research undisputed in the inquiries just described. They have the additional pleasure of having their results accepted without challenge. No one presumes to question the accuracy of the chronograph and myograph. But the results are a record of physical actions. It is certainly true that the actions observed are all in close relation with action of mind. But the knowledge of this is obtained only through the testimony of consciousness. Psycho-physiology makes its appeal to Introspection.

Here the inevitable limitation of experimental psychology becomes apparent. Its discoveries concerning mind are only such as can be made by looking across the line; they cannot include anything belonging to the heart of the country, whose boundary-line marks the limit of advance. No possible objection can be offered to the point of observation chosen; nor can there be doubt of the value of the results obtained;

but these do not constitute a psychology, or doctrine of the soul. At best, they supply a view of the soul's relations with its environment, more especially with its own organism, as the vehicle of sensibility and of motion. But mental action is not included. The further we advance into the knowledge of mind, the further we travel from the border land on which the results are obtained. Thus Experimental Psychology is only an auxiliary to mental philosophy. The new method cannot displace the old; the new cannot do any part of the work which has been undertaken by the old. The two must do their several parts. Combined, they will yield a more complete representation of human life than has yet been found.

Testimony in support of this double conclusion may be gathered in abundance from the pages of experimental psychologists. Even while magnifying attendant physical phenomena, they grant the priority and superiority of mental activity. Thus, when Professor James, in his introductory claim for Experimental Psychology, says that "mental facts cannot be properly studied apart from the physical environment of which they take cognizance,"[1] he recognizes the distinction between body and mind, admits that knowledge belongs to the latter, and advances a plea which is good for no more than this, that life and its environment must be taken together. This is virtually to admit that mind is known only by introspection; that physical accompaniments can be known only by observation, aided by laboratory work; that even these accompaniments can be interpreted only as the mind takes cognizance of them. At the same time the claim is obviously a valid one, that we study mind in relation to its environment, organic and material. As we cannot contemplate environment without reference to the life unfolding in it, so is it true that we cannot study the life itself without regard to the range of its relations.

But all this being granted, the great perplexities of mental science remain untouched by the new method of investigation. By it the observer cannot approach the grand characteristics of rational life, including reflection and the self-direction of ethical conduct. By the old pathways of introspection more must come and go as aforetime, if they are to reach any adequate science of human life.

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[1] *Text-Book of Psychology*, p. 3.

On the other hand, we have much to expect from the fresh start which has been given to study of the conditions of our life by experimental psychology. This expectation does not arise merely from the fact that nothing concerning human life can fail to interest us. It rests on the deeper reason, that many of the intellectual and moral characteristics of human life are incapable of being fully appreciated until we have obtained some larger knowledge of the physical conditions with which they are related. We are waiting for fresh discovery, in order to have fuller knowledge of the conditions of our life. But, if such discovery is to be made, as we have reason to desire, it must be observed that towards such achievement experimental psychology can be only auxiliary. We need to get much beyond the records of the chronograph and myograph; and beyond observations on the temperature of the brain during profound reflection, and beyond the effects of concentrated study on the nutritive properties of the blood. Things more subtle, and more closely connected with the higher life of the soul, are the things specially needing to be understood, in order to reach fuller knowledge of ourselves.

Without being able to forecast what remains for discovery, it is easy to indicate the great wants to be supplied by continued research on the border-land where soul and body meet, and where activity, physical and mental, acts upon the correlated life. Our deeper problems lie far in advance of the field of investigation here contemplated; yet many of those problems may have unexpected light thrown upon them by enlarged knowledge of the physical conditions of our existence. Specially, we desire to have a fuller knowledge of our emotional nature, and of the mighty influence of sentiment in the quickening of our activity. We need a more comprehensive view of the manner in which physical sensibilities react on mental life. Reversing the order, we need to know more fully how mind reacts on the physical condition. What are the varied forms in which physical susceptibilities influence the development and action of the mind; on the other hand, what are the channels of influence by which mental activity comes to tell upon the physical life? There are large fields of enquiry here, giving promise of large gain in the future.

Beyond the questions concerning brain temperature, connected with thought-action, as well as with increased blood-supply, lies the more interesting enquiry, how certain exercises of imagination, contemplation, and reflection not only affect circulation, but exert a quickening influence over the bodily life as a whole. Along with this, we desire to have wider views of our relations to Nature, as these are connected with our sense of the beautiful in form, and color, and sound. What is the full explanation of the sense of pleasure experienced when we look on a vast landscape, richly varied in mountain and valley, in wood and river, in heath and greensward. We do not half understand what are the secret springs of physical susceptibility touched by the single act of vision which includes this wealth of scenery. Too vast in range the scene is to engage the efforts of the most skilled artist; yet the least skilled in eye, and deftness of hand, and blending of colors, shares with the artist in the thrill of delight when such a scene is stretched before us in the gorgeous sunshine. Turning to a different phase of experience, we have a series of questions, rising in rapid succession. What is musical susceptibility, — how wide is its physical and mental range, — how far does culture of musical taste affect the whole life, physical and mental, — and how far does mental susceptibility, capable of being cultivated by ourselves without participation in technique, act upon the physical condition, inducing a growing organic aptitude for appreciation of the riches of sound? Towards answering of such questions, our new methods of experimental psychology must render important help. The sooner a resolute advance is made into these regions, the better it will be for us all. There can be little doubt that, in approaching towards an answer of such questions, we shall come to a fuller understanding of the possibilities of human life in all its higher aspects.

HENRY CALDERWOOD.

UNIVERSITY OF EDINBURGH.